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10/780,146	02/17/2004	Richard A. Bye	BP2970	3726

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EXAMINER
CAI, WAYNE HUU

ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/780,146	BYE, RICHARD A.	
	Examiner	Art Unit	
	WAYNE CAI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) *1-11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed April 21, 2010 have been fully considered but they are not persuasive.

REJECTIONS UNDER 35 U.S.C. 112

The Examiner agrees with the Applicant that paragraph 0044 and 0046 of the specification indicates that the quality level of the wireless link is utilized to determine the coding scheme. The Examiner, however, notes that these paragraphs fail to suggest that **only** quality level of the wireless link is utilized to determine the coding scheme.

The Examiner also agrees with the Applicant that the use of the term "may" clearly suggests that this is not required. Thus, the Applicant is entitled to claim the use of quality level of the wireless link to determine the coding scheme. The Applicant is however cannot claim quality level of the wireless link is the **only** one used to determine the coding scheme because the specification does not limit only the quality level of the wireless link is used. In other words, the phrase "**only** quality level of the wireless link is used" means that **nothing else besides** the quality level of the wireless link is used to determine the coding scheme. The specification, on the other hand, fails to restrict to this issue. Thus, in response to this office action, the Applicant is suggested either to

remove the term "only" from claim language and/or to further point out the support of this term.

REJECTIONS UNDER 35 U.S.C 103

The Applicant admits at the third paragraph of page 13 that Braun teaches the quality of the downlink (i.e., from the AP to the terminal) is monitored in the terminal and that the downlink quality is used by the terminal to change a coding scheme (paragraphs 0026, 0042 and 0052 of Braun).

The Applicant, however, argues that this teaching does not read on the step of having the AP measure the uplink quality (i.e., from the terminal to the AP) and then select the coding scheme to be used by the terminal based on the uplink quality. The Examiner respectfully disagrees.

It is noted that claims do not recite the AP measure the uplink quality, and then select the coding scheme to be used by the terminal based on the uplink quality as stated by the Applicant. Claims recite, in part, "measuring the communication quality level **for** an uplink path from the WLAN terminal to the AP and then selecting coding scheme based on the communication quality level".

Claims only require measuring the communication quality level **for the uplink path**. Claims do not expressly define measuring the communication quality level of the downlink path or the uplink path. In other words, measuring the communication quality link level for the uplink path is not equivalent to measuring the communication quality link level of the uplink path.

Based on this interpretation, the limitation "measuring the communication quality link level for the uplink path" is broadly and reasonably interpreted as **measuring the communication quality of either uplink or downlink for the uplink path.**

In turn, because the Examiner considers this claimed limitation to be measuring the communication quality **of the downlink** for the uplink path, it is noted that Braun teaches or suggests this limitation as admitted by the Applicant.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 12-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Although the Applicant has discussed about this rejection made in previous office action in the current response; the Examiner, however, still maintains this rejection because the Applicant's arguments are not convinced. The Examiner once again discusses in Section "Response to Argument" above as to why this rejection is still

maintained. In response to this Office Action, the Examiner respectfully suggests the Applicant to further discuss this issue.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 12-16 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abaye et al. (hereinafter "Abaye", US 7,260,060) in view of Pepin et al. (hereinafter "Pepin", US 2004/0160979) and further in view of Braun et al. (hereinafter "Braun", US 2004/0203451).

Regarding claim 12, Abaye teaches or suggests a method of servicing real-time communications to a Wireless Local Area Network (WLAN) terminal, comprising:

selecting an initial coding scheme from a plurality of supported coding schemes with a programmable COder/DECoder (CODEC), each of the plurality of supported coding schemes being associated with a different one of a plurality of codec protocols (fig. 3, CALL_SETUP including a selected CODEC. Also, col. 6, line 64 - col. 7, line 9 and col. 9, lines 34-64 describes the step of selecting an initial coding scheme for communication. Furthermore, col. 6, lines 38-56 also describes a plurality of coding schemes, wherein each of the coding scheme is a different codec protocol. For

example, G.711, G.729A, G.723.1, each is known as coding scheme. G.711 is known as one codec protocol, G.729A is known as another codec protocol, and G.723.1 is known as a different protocol, etc.);

converting incoming user communications from packetized communications and outgoing user communications to packetized communications according to the selected coding scheme (fig. 6, D/A 31 and A/D 320 are used to convert incoming/outgoing communications. Control unit 340 and digital signal processing 346 are also used);

Abaye, however, does not expressly teach or suggest:

receiving incoming and outgoing user communications at a user interface of a WLAN terminal;

exchanging packetized communications between a servicing Access Point (AP) of the WLAN terminal and the WLAN terminal at a communication quality level;

measuring the communication level for an uplink path from the WLAN terminal to the AP, the communication quality being based on latency of the outgoing user communications at the AP; and

revising the selected coding scheme from the plurality of supported coding schemes based upon only the communication quality level delivered between the AP and WLAN terminal.

In a similar endeavor, Pepin teaches or suggests source and channel rate adaptation for VOIP. Pepin also teaches or suggests receiving incoming and outgoing user communications at a user interface of a WLAN terminal (wirelessly receives voice/data between terminal 102 and 120 as described in paragraph 0035);

exchanging packetized communications between a servicing Access Point (AP) of the WLAN and the WLAN terminal at a communication quality level (i.e., the communication between terminal 102 and access points 104 as illustrated in fig. 1 and described in paragraph 0035);

revising the selected coding scheme from the plurality of supported coding schemes based upon the communication quality level delivered between the AP and WLAN terminal (abstract, fig. 3, block 308 teaches or suggests adjusting source and channel code bit rates means to revise the coding scheme).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abaye's teachings and include a step of receiving incoming/outgoing user communications at a user interface of a WLAN terminal, exchanging packetized communications, and revising packetized communications.

The motivation/suggestion for doing so would have been to enable the user to communicate with a remote device wirelessly, ensure the connection reliability and achieve a maximum user perceived performance.

Furthermore, the combination of Abaye and Pepin do not expressly teach or suggest:

measuring the communication level for an uplink path from the WLAN terminal to the AP, the communication quality being based on latency of the outgoing user communications at the AP; and

based upon only the communication quality level delivered between the AP and terminal.

In a similar endeavor, Braun teaches or suggests a method for transmitting signal between terminal and network component. Braun also teaches or suggests:

measuring the communication level for an uplink path from the WLAN terminal to the AP, the communication quality being based on latency of the outgoing user communications at the AP (Figures 1 & 2 and its descriptions); and

based upon only the communication quality level delivered between the AP and terminal (paragraph 0032).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abaye and Pepin's invention and arrive at the present invention by including the feature of based upon only the communication quality level delivered between the AP and terminal.

The motivation/suggestion for doing so would have been to improve the method of measuring the signal quality and quickly select the coding scheme for communications.

Regarding claim 13, Abaye, Pepin and Braun teach and suggest all limitations recited in claims as described above. Abaye also teaches or suggests exchanging packetized communications between the WLAN terminal and a far-end terminal (i.e., the communication in network 20 as illustrated in fig. 2);

monitoring a communication quality level between the WLAN terminal and the far-end terminal to determine the communication quality level delivered between the WLAN terminal and the far-end terminal (i.e., the usage of TRACE-ROUTE_REQUEST and RESPONSE, and the query and response of resource as illustrated in fig. 3 and described in col. 9, lines 29-50 and col. 10, line 61 - col. 11, line 11); and

revising the selected coding scheme from the plurality of supported coding schemes based upon the communication quality level delivered between the WLAN terminal and the far-end terminal (col. 11, lines 30-53 teaches or suggests updating the codec based on the bandwidth requirement, which is the quality level).

Regarding claim 14, Abaye, Pepin and Braun teach and suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the supported coding schemes comprise at least one audio and/or video coding scheme selected from the group consisting of Huffman encoding, ITU-T G.711, u-law, A-law, CCITT G.721, CCITT G.723, ITU-T G.726, ITU-T G.723.1, ITU-T G.723.1A, ITU-T G.729, ITU-T G.729A, ITU-T G.729AB, ITU-T G.729E, ITU-T G.728, ITU-T G.722, ITU-T G.722.1, ITU-T G. 722.2, GS M- EFR, GS M AMR, IMA/DVI ADPCM, Micro s oft ADPCM,LPC - 10E, CELP GSM 06.10, shorten, Real Audio, MPEG, ACE and MACE (col. 6, lines 38-56).

Regarding claim 15, Abaye, Pepin and Braun teach and suggest all limitations recited in claims as described above. Abaye also teaches or suggests monitoring the

latency of a jitter buffer to determine the communication quality level between the AP and WLAN terminal (col. 4, lines 6-27 teaches or suggests monitoring jitter).

Regarding claim 16, Abaye, Pepin and Braun teach and suggest all limitations recited in claims as described above. Abaye also teaches or suggests interacting with the far-end terminal to revise the selected coding scheme (i.e., interacting in network 20 as described in fig. 3, and querying for quality level. See col. 5, lines 56-65 and col. 10, line 61 – col. 11, line 11).

Regarding claim 19, Abaye, Pepin and Braun teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are audio communications (col. 5, lines 37-55).

Regarding claim 20, Abaye, Pepin and Braun teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are audiovisual communications (col. 5, lines 37-55).

Regarding claim 21, Abaye, Pepin and Braun teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the audiovisual communications are video conferencing communications (col. 18, lines 29-35).

Regarding claim 22, Abaye, Pepin and Braun teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are video communications (col. 5, lines 37-55).

6. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abaye et al. (hereinafter "Abaye", US 7,260,060) in view of Pepin et al. (hereinafter "Pepin", US 2004/0160979) in view of Braun et al. (hereinafter "Braun", US 2004/0203451) and further in view of Wheeler et al. (hereinafter "Wheeler", US 7,242,932).

Regarding claim 17, Abaye, Pepin and Braun teach and suggest all limitations recited in claims as described above, but do not expressly teach or suggest monitoring a plurality of APs by the wireless terminal and selecting the servicing AP based upon an expected service quality level.

In a similar endeavor, Wheeler teaches or suggests a mobile internet protocol on a signaling channel. Wheeler also teaches or suggests monitoring a plurality of APs by the wireless terminal and selecting the servicing AP based upon an expected service quality level (col. 5, lines 34-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Abaye, Pepin and Braun and include the step of monitoring a plurality of APs by the wireless terminal and selecting the servicing AP based upon an expected service quality level.

The motivation/suggestion for doing so would have been to ensure that the user is properly authenticated and get the optimal services provided from the service providers.

Regarding claim 18, Abaye, Pepin, Braun and Wheeler teach or suggest all limitations recited in claims as described above. Wheeler also teaches or suggests wherein monitoring the plurality of APs further comprises:

querying at least one of the plurality of APs to determine the expected service quality level from the AP (col. 5, lines 34-40); and

registering with a new servicing AP when the expected service quality level to be provided by the new servicing AP exceeds the expected service quality level provided by the servicing AP by a predetermined service quality level (col. 5, lines 41-67 teaches or suggests the registration process).

7. Claims 23-25, 28-36 and 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abaye et al. (hereinafter "Abaye", US 7,260,060) in view of Pepin et al. (hereinafter "Pepin", US 2004/0160979) in view of Braun et al. (hereinafter "Braun", US 2004/0203451) and further in view of Terasawa et al. (hereinafter "Terasawa", US 2003/0007471).

Regarding claim 23, Abaye teaches or suggests a Wireless Local Area Network (WLAN) terminal, comprising:

a programmable COder/DECoder (CODEC) (fig. 6, CODEC 310) communicatively coupled to and controlled by the processing unit that converts incoming packetized communications to incoming user communications and that converts outgoing user communications to outgoing packetized communications according to a selected coding scheme (fig. 6, D/A 31 and A/D 320 are used to convert incoming/outgoing communications. Control unit 340 and digital signal processing 346 are also used);

a user interface communicatively coupled to the programmable CODEC that receives the incoming user communications and that produces the outgoing user communications (fig. 6 illustrates terminal 14 includes a speaker 314 and microphone 316, which reads on user interface, are both connected to CODEC 310);

whereby the processing unit chooses the selected coding scheme from a plurality of supported coding schemes, each associated with a different one of a plurality of codec protocols (col. 6, lines 38-56 describes a plurality of coding schemes, wherein each of the coding scheme is a different codec protocol. For example, G.711, G.729A, G.723.1, each is known as coding scheme. G.711 is known as one codec protocol, G.729A is known as another codec protocol, and G.723.1 is known as a different protocol, etc.), the selected coding scheme being assigned based upon only the communication quality level between the AP and LAN terminal (i.e., the selection of coding scheme is based on the quality level between end-to-end or the communication paths as described in col. 5, lines 56-65 and col. 7, lines 29-49).

Abaye, however, does not expressly teach or suggest:

a wireless interface that communicates with a servicing Access Point (AP) of the WLAN to service packetized communications;

a processing unit communicatively coupled to the wireless interface, whereby the processor communicates with a far-end terminal; and

based upon the selected coding scheme assigned by the AP in response to the AP measuring a communication quality level for an uplink path from the WLAN terminal to the AP, the communication quality level being based on latency of the outgoing user communications at the AP.

In a similar endeavor, Pepin teaches or suggests source and channel rate adaptation for VOIP. Pepin also teaches or suggests a wireless interface that communicates with a servicing Access Point (AP) of the WLAN to service packetized communications (i.e., the wireless communication between terminal 102 and an access points 104 as illustrated in fig.1 and described in paragraph 0034);

a processing unit (terminal 102 includes a processing unit) communicatively coupled to the wireless interface, whereby the processor communicates with a far-end terminal (wireless destination terminal 120 as illustrated in fig. 1 and described in paragraph 0035).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abaye's invention by including a wireless interface that communicates with a servicing Access Point (AP) of the WLAN to service packetized communications and a processing unit communicatively coupled to the wireless interface, whereby the processor communicates with a far-end terminal.

The motivation/suggestion for doing so would have been to enable to the user to mobilize and still capable of communicating with another user remotely via a wireless network.

In a similar endeavor, Braun teaches or suggests a method for transmitting signal between terminal and network component. Braun also teaches or suggests:

the selected coding scheme being assigned based upon only the communication quality level delivered between the AP and terminal (paragraph 0032);

based upon the selected coding scheme assigned by the AP in response to measuring a communication quality level for an uplink path from the WLAN terminal to the AP, the communication quality level being based on latency of the outgoing user communications at the AP, the selected coding scheme being assigned (Figures 1 and 2 and its descriptions). It is also noted that although Braun does not expressly disclose the AP actually measures the communication quality level. It is obvious and/or well known in the art that either the AP or the mobile station to measure the quality level.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abaye and Pepin's invention and arrive at the present invention by including the feature of based upon only the communication quality level delivered between the AP and terminal.

The motivation/suggestion for doing so would have been to improve the method of measuring the signal quality and quickly select the coding scheme for communications.

Lastly, the combination of Abaye, Pepin and Braun does not expressly disclose the AP measuring a communication quality level.

In a similar endeavor, Terasawa discloses a wideband CDMA system support asynchronous operation. Terasawa also discloses the AP measuring a communication quality level (paragraph 0018). Although the Examiner provides Terasawa as a reference for the teaching of having the AP to measure the communication quality level, it is also noted that the concept of having the AP or the MS to measure the communication quality level is known in the art. One skilled in the art would conceptualize the measurement of quality level can be performed by either the AP or the MS and to measure the quality level of either the uplink or the downlink. Hence, this claimed element is not novel.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify these references and arrive at the present invention by having the AP to measure the quality level.

The motivation/suggestion for doing so would have been to enable the access point to process data more quickly.

Regarding claim 24, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the supported coding schemes comprise at least one audio and/or video coding scheme selected from the group consisting of Huffman encoding, ITU-T G.711, u-law, A-law, CCITT G.721, CCITT G.723, ITU-T G.726, ITU-T G.723.1, ITU-T G.723.1A, ITU-

T G.729, ITU-T G.729A, ITU-T G.729AB, ITU-T G.729E, ITU-T G.728, ITU-T G.722, ITU-T G.722.1, ITU-T G. 722.2, GS M- EFR, GS M AMR, IMA/DVI ADPCM, Micro s oft ADPCM,LPC - 10E, CELP GSM 06.10, shorten, Real Audio, MPEG, ACE and MACE (col. 6, lines 38-56).

Regarding claim 25, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Pepin also teaches or suggests a jitter buffer whereby the processing unit monitors that latency of the jitter buffer to determine the communication quality level (paragraphs 0006 and 0011 discusses about jittering).

Regarding claim 28, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are audio communications (col. 5, lines 37-55).

Regarding claim 29, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are audiovisual communications (col. 5, lines 37-55).

Regarding claim 30, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the audiovisual communications are video conferencing communications (col.

18, lines 29-35).

Regarding claim 31, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are video communications (col. 5, lines 37-55).

Regarding claim 32, Abaye teaches or suggests a Wireless Local Area Network (WLAN) terminal, comprising:

a programmable COder/DECoder (CODEC) communicatively coupled to and controlled by the processing unit that converts incoming packetized communications to incoming user communications and that converts outgoing user communications to outgoing packetized communications according to a selected coding scheme (fig. 6, D/A 31 and A/D 320 are used to convert incoming/outing communications. Control unit 340 and digital signal processing 346 are also used);

a user interface communicatively coupled to the programmable CODEC that receives the incoming user communications and that produces the outgoing user communications (fig. 6 illustrates terminal 14 includes a speaker 314 and microphone 316, which reads on user interface, are both connected to CODEC 310); and

whereby the processing unit chooses the selected coding scheme from a plurality of supported coding schemes, each associated with a different one of a plurality of codec protocols, the selected coding scheme being assigned based upon only the communication quality level (col. 5, lines 56-65 describes a plurality of coding schemes

or codec protocols such as G.711, G.729A, etc. Furthermore, col. 7, lines 29-49 describes the process of selecting coding scheme based on capacity and quality of service, which is the communication quality level of claimed limitation).

Abaye, however, does not expressly teach or suggest:

a wireless interface that communicates with a servicing Access Point (AP) of the WLAN terminal to service packetized communications;

a processing unit communicatively coupled to the wireless interface; and

based upon the selected coding scheme assigned by the AP in response to the AP measuring a communication quality level for an uplink path from the WLAN terminal to the AP, the communication quality level being based on latency of the outgoing user communications at the AP.

In a similar endeavor, Pepin teaches or suggests source and channel rate adaptation for VOIP. Pepin also teaches or suggests a wireless interface that communicates with a servicing Access Point (AP) of the WLAN terminal to service packetized communications (i.e., the wireless communication between terminal 102 and an access points 104 as illustrated in fig.1 and described in paragraph 0034);

a processing unit (wireless terminal 102 includes a processing unit) communicatively coupled to the wireless interface (wireless terminal 102 wirelessly communicates with wireless terminal 120 as illustrated in fig. 1 and described in paragraph 0035).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abaye's invention by including a wireless

interface that communicates with a servicing Access Point (AP) of the WLAN terminal to service packetized communications and a processing unit communicatively coupled to the wireless interface.

The motivation/suggestion for doing so would have been to enable to the user to mobilize and still capable of communicating with another user remotely via a wireless network.

In a similar endeavor, Braun teaches or suggests a method for transmitting signal between terminal and network component. Braun also teaches or suggests:

the selected coding scheme being assigned based upon only the communication quality level delivered between the AP and terminal (paragraph 0032);

based upon the selected coding scheme assigned by the AP in response to measuring a communication quality level for an uplink path from the WLAN terminal to the AP, the communication quality level being based on latency of the outgoing user communications at the AP, the selected coding scheme being assigned (Figures 1 and 2 and its descriptions). It is also noted that although Braun does not expressly disclose the AP actually measures the communication quality level. It is obvious and/or well known in the art that either the AP or the mobile station to measure the quality level.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abaye and Pepin's invention and arrive at the present invention by including the feature of based upon only the communication quality level delivered between the AP and terminal.

The motivation/suggestion for doing so would have been to improve the method of measuring the signal quality and quickly select the coding scheme for communications.

Lastly, the combination of Abaye, Pepin and Braun does not expressly disclose the AP measuring a communication quality level.

In a similar endeavor, Terasawa discloses a wideband CDMA system support asynchronous operation. Terasawa also discloses the AP measuring a communication quality level (paragraph 0018). Although the Examiner provides Terasawa as a reference for the teaching of having the AP to measure the communication quality level, it is also noted that the concept of having the AP or the MS to measure the communication quality level is known in the art. One skilled in the art would conceptualize the measurement of quality level can be performed by either the AP or the MS and to measure the quality level of either the uplink or the downlink. Hence, this claimed element is not novel.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify these references and arrive at the present invention by having the AP to measure the quality level.

The motivation/suggestion for doing so would have been to enable the access point to process data more quickly.

Regarding claim 33, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests

whereby the processor communicates with a far-end terminal to indicate the selected coding rate (fig. 3, CALL_SETUP includes a list of CODEC).

Regarding claim 34, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the supported coding schemes comprise at least one audio and/or video coding scheme selected from the group consisting of: Huffman encoding, ITU-T G.711, u-law, A-law, CCITT G.721, CCITT G.723, ITU-T G.726, ITU-T G.723.1, ITU-T G.723.1A, ITU-T G.729, ITU-T G.729A, ITU-T G.729AB, ITU-T G.729E, ITU-T G.728, ITU-T G.722, ITU-T G.722.1, ITU-T G.722.2, GSM-EFR, GSM AMR, IMA/DVI ADPCM, Microsoft ADPCM,LPC-10E, CELP GSM 06.10, shorten, Real Audio, MPEG, ACE and MACE (col. 6, line 38-56).

Regarding claim 35, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests a jitter buffer whereby the processing unit monitors the latency of the jitter buffer to determine the communication quality level (col. 4, lines 6-27 teaches or suggests monitoring jitter).

Regarding claim 36, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests whereby the processing unit further interacts with a far-end terminal in choosing the selected coding scheme (col. 9, line 65 – col. 10, line 31 teaches or suggests monitoring

and discovering resource requirements in order to select the optimal coding scheme or codec protocol).

Regarding claim 39, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are audio communications (col. 5, lines 37-55).

Regarding claim 40, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are audiovisual communications (col. 5, lines 37-55).

Regarding claim 41, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the audiovisual communications are video conferencing communications (col. 18, lines 29-35).

Regarding claim 42, Abaye, Pepin, Braun and Terasawa teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests the user communications are video communications (col. 5, lines 37-55).

8. Claims 26, 27, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abaye et al. (hereinafter "Abaye", US 7,260,060) in view of Pepin et al. (hereinafter "Pepin", US 2004/0160979) in view of Braun et al. (hereinafter "Braun", US 2004/0203451) in view of Terasawa et al. (hereinafter "Terasawa", US 2003/0007471) and further in view of Wheeler et al. (hereinafter "Wheeler", US 7,242,932).

Regarding claim 26, Abaye, Pepin, Braun and Terasawa teach and suggest all limitations recited in claims as described above, but do not expressly teach or suggest whereby the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level.

In a similar endeavor, Wheeler teaches or suggests a mobile internet protocol on a signaling channel. Wheeler also teaches or suggests the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level (col. 5, lines 34-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Abaye, Pepin, Braun and Terasawa and include the step of the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level.

The motivation/suggestion for doing so would have been to ensure that the user is properly authenticated and get the optimal services provided from the service providers.

Regarding claim 27, Abaye, Pepin, Braun and Terasawa teach and suggest all limitations recited in claims as described above, but do not expressly teach or suggest features of this claim.

In a similar endeavor, Wheeler teaches or suggests a mobile internet protocol on a signaling channel. Wheeler also teaches or suggests whereby the wireless interface:

monitors a plurality of APs (col. 5, lines 34-40);

queries at least one of the plurality of APs to determine a service quality that could be provided by the AP (col. 5, lines 34-40); and

registers with a new AP when a service quality to be provided by the new servicing AP exceeds a service quality provided by the servicing AP by a predetermined service quality level (col. 5, lines 41-67 teaches or suggests the registration process).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abaye, Pepin, Braun and Terasawa's teaching by including the steps of monitoring, querying and register with a new AP when a service quality to be provided by the new servicing AP exceeds a service quality provided by the servicing AP by a predetermined service quality level

The motivation/suggestion for doing so would have been to ensure that the user is properly authenticated and get the optimal services provided from the service providers.

Regarding claim 37, Abaye, Pepin, Braun and Terasawa teach and suggest all limitations recited in claims as described above, but do not expressly teach or suggest

whereby the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level.

In a similar endeavor, Wheeler teaches or suggests a mobile internet protocol on a signaling channel. Wheeler also teaches or suggests whereby the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level (col. 5, lines 34-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Abaye, Pepin, Braun and Terasawa and include the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level.

The motivation/suggestion for doing so would have been to ensure that the user is properly authenticated and get the optimal services provided from the service providers.

Regarding claim 38, Abaye, Pepin, Braun and Terasawa teach and suggest all limitations recited in claims as described above, but do not expressly teach or suggest features of this claim.

In a similar endeavor, Wheeler teaches or suggests a mobile internet protocol on a signaling channel. Wheeler also teaches or suggests whereby the wireless interface:

monitors a plurality of APs (col. 5, lines 34-40);

queries at least one of the plurality of APs to determine a service quality that could be provided by the AP (col. 5, lines 34-40); and

registers with a new AP when a service quality to be provided by the new servicing AP exceeds a service quality provided by the servicing AP by a predetermined service quality level (col. 5, lines 41-67 teaches or suggests the registration process based on signal strength).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Abaye, Pepin, Braun and Terasawa and include the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level.

The motivation/suggestion for doing so would have been to ensure that the user is properly authenticated and get the optimal services provided from the service providers.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WAYNE CAI whose telephone number is (571)272-7798. The examiner can normally be reached on Monday-Thursday from 8:00 a.m. to 6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wayne Cai/
Primary Examiner, Art Unit 2617